To: Charters, David[Charters.DavidW@epa.gov]; Sprenger, Mark[Sprenger.Mark@epa.gov]

From: Greenberg, Marc

**Sent:** Mon 8/10/2015 4:33:25 PM

Subject: FW: EOC Spot Report: Update #1, Region 8, Abandoned Mine Release into Animas River;

San Juan County, CO

FYI on something else I submitted to the EU.

From: Greenberg, Marc

Sent: Monday, August 10, 2015 11:23 AM

To: Rauscher, Jon; Wall, Dan; OBrien, Wendy; Keteles, Kristen; Black, Ned; Hiatt, Gerald

Cc: Allen, HarryL; Valdes, Dennisses; McKean, Deborah

Subject: RE: EOC Spot Report: Update #1, Region 8, Abandoned Mine Release into Animas

River; San Juan County, CO

EU folks,

Harry Allen in R9 brought a good question about mass balance to my attention earlier today. Metals is one thing, but also pH, alkalinity, hardness and other WQ parameters. So, it might be wise to do some mass balances to show the estimated contributions to the stream other than color that is shown by a photograph. So the question is, has anyone been looking into a mass balance to enhance our understanding and expectations on what this spill of 30 M gal might mean? It might provide a way for us to contextualize the spill (from multiple perspectives: mass loading, exposure potential, and risk). Sounded like an EU question to me.

You may have people that can do this for you as part of the response. If not, please contact myself or Dee Valdes for assistance.

Thanks.

Marc

Marc S. Greenberg, Ph.D.
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U.S. EPA - Environmental Response Team

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